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ABSTRACT

Presenting a methodolcgical statement for a study of quality of life variability in rural development, this paper is based upon a dimension of expansive/nonexpansive ideology of community leaders. The three hypotheses to be tested state that among communities: the greater the social organization for development among nonexpansive leaders, the greater the nonexpansive development; the greater the social organization for development among expansive leaders, the greater the expansive development; and the greater the expansive/nonexpansive homogeneity of social organization for development in the elite subsystem, the greater the predictability of expansive or nonexpansive development. This paper suggests that the hypotheses be tested via 10 years of data derived from the S-120 Regional Research Project and that the methodology incorporate the following: division of development leaders into expansive and nonexpansive groups; organization of development groups consistent with leader ideologies; consideration of the primacy of each individual via the concepts of centrality and influence measured separately; and classification of community expansive/nonexpansive growth via indexes of: community living conditions; the natural environment; governmental environment; the economic environment; public safety; and the health, education, and cultural environment. (JC)

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EXPANSIVE VS. NONEXPANSIVE GROWTH IN RURAL COMMUNITIES: A METHODOLOGICAL STATEMENT

Stephen G. Sapp and Peter F. Korsching*

Introduction

This is a methodological statement for a study of quality-of-life variability in rural development that is predicated upon a dimension of expansive/nonexpansive ideology of community leaders. The study hypothesizes that the ideological orientation of community leaders to development affects the type of development the community experiences. If community leaders are oriented toward expansive development, the community will experience expansive development; if the leaders are nonexpansive-oriented, the community will experience nonexpansive development. To test this hypothesis, community leaders will first be classified on an ideological dimension of expansionism/nonexpansionism. Using the dimension of expansive and nonexpansive community leaders, the study will examine the effect these persons have on the type of development the community has experienced over the past ten years.

Expansive Growth and Nonexpansive Growth

Expansive growth represents development that emphasizes increases in the rate of economic growth. It represents the familiar conception of growth as industrialization based on capital-intensive technology. Accretion of per capita income, of population, of production and manufacturing, and of industrial operations, reflect an expansive growth ideology.

The concept of nonexpansive growth represents an exploration of an emerging conception in community development literature that there are alternative pathways to development (Caiden, 1974; Gross, 1966; Hamburger, 1974; Lerner, 1967; Rogers, 1975, 1976). It represents an orientation to the equality of distribution of information, and of socioeconomic benefits; to popular participation in self-development planning and execution, usually accompanied by the decentralization of some of these activities to the local level; to self reliance and independence in development, with an emphasis on the potential of local

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resources; and to integration of traditional with modern systems, so that modernization is a syncretization of old and new ideas (Rogers, 1976:130-1).

Nonexpansionism is not a no-growth philosophy. Nor is nonexpansive growth non-economic. Nonexpansionism, like expansionism, is a direction of community growth comprising accretion of income and wealth. Nonexpansive growth, however, in comparison with expansive growth, is a broader concept encompassing an equal focus on development in a wide range of areas--including community living conditions, the governmental environment, the natural environment, the economic environment, public safety, and the health, education, and cultural environment. Nonexpansionism is community development oriented, and it is related to economic growth. The difference between the expansive and the nonexpansive conceptions of of development is one of scope, in that nonexpansionism considers other than strictly economic factors.

The expansive/nonexpansive dimension represents a difference of attitude toward both the means and the outcomes of development. Expansionism is an orientation to development with principal concern for increasing the amount of economic activity in the community. It is a philosophy of growth based on quantity of industrialization that is planned for and initated by community leaders for the benefit of the economic environment. Nonexpansionism is an orientation to development with a focus on equalization of distribution activated by self-directed programs initated at the local level, that can be achieved without a debunking of traditional ways of thinking and acting. With the nonexpansive orientation, primacy in development is directed toward the closing of socioeconomic gaps of lagging sectors through ground-up approaches that emphasize participation by local people (Rogers, 1976:130).

Theoretical Approach

The community development process involves organization of local people for social change. Whether social change consists of the initiation and diffusion of an innovation, the implementation of an action program designed to upgrade community services or facilities, or of a community-based project aimed at the partial or complete improvement of some problem or need, development is most often guided initially by a change agent who takes responsibility for the activation of the process, and who influences growth toward self-direction on the part of interested citizens.

Previous experience and research on the role of the change agent in the success or failure of community development program has given some guidelines relating to agent-audience interaction that are beneficial to social intervention. We know that a social intervention program should make an accurate estimate of the audience's needs within

the system's norms, that the program should be compatible with the audience's past experiences, and that it should make use of opinion leaders in its implementation. The program should include some assessment of the members of the target system, and some anticipation of the consequences of the program given the above information (Rogers, 1962).

One aspect of the target system that warrants consideration in the design of a community development program is the ideological orientation of the community members to growth; and particularly, the ideological orientation of the leaders, or the elite subsystem, of the community. One such ideological orientation to growth is the expansive/nonexpansive dimension.

The predominant orientation of the community elite subsystem will determine which type of development the community experiences. The greater the subsystem is oriented toward expansive growth, the greater will be the expansive growth of the community. The same principle applies to a nonexpansive ideological predominance of the community elite subsystem.

The "predominance" of an ideological orientation to development within a community elite subsystem is more empirically applicable if it is replaced by a synonomous term--social organization for development. Social organization for development is a pattern of interaction among individuals in a group who are involved in working toward the accomplishment of some group-related, development objectives. This definition has a two-fold connotation. First, group activity for development will exhibit an identifiable pattern of interaction among group members. Secondly, this pattern of interaction can be measured on its degree of effectiveness for the accomplishment of development objectives.

Three hypotheses will be tested:

1. Among communities, the greater the social organization for development among expansive leaders, the greater the expansive development.

2. Among communities, the greater the social organization for development among nonexpansive leaders, the greater the nonexpansive development.

3. Among communities, the greater the expansive/nonexpansive homogeneity of social organization for development within the elite subsystem, the greater the predictability of expansive or nonexpansive development.

Hypotheses 1. and 2. are testing for the effect of a well-organized clique of expansive or nonexpansive leaders on the type of development the community experiences. It is important to realize, however,

that such a clique could be an isolated, and somewhat incidental, group within a broader community elite subsystem that is oriented toward a different type of development. So, Hypothesis 3. will test for the effect of homogeneity on social organization for development within a community elite subsystem on development outcomes.

The expansive orientation to growth is the dominant paradigm of development. Most need-evaluation studies will find expansive growth in the forefront of the community's objectives. The orientation of nonexpansive growth is proposed because not all communities are expansive oriented, nor are all expansive-oriented communities homogeneous on this axis. For maximum benefit of community-development program design and implementation, social change agents should consider the expansive/nonexpansive dimension of ideological orientation among the community elite subsystem. Therefore, change agents should first make sure they are not trying to initiate an expansive growth program into an inherently unreceptive community.

Methodological Approach

The data to be used in testing for the viability of an expansive/nonexpansive dimension of community development will be from the S-120 Regional Research Project: "Social Organization for Development." In S-120, information from the respondents on their formal and/or informal contacts regarding decision making in some specified area of development was compiled in matrix format so as to provide a basis for an analysis of their patterns of interaction. Information was also collected from respondents on their views of the community's advantages and disadvantages, on their organizational memberships, and on some of their personal characteristics.

The approach to the study comprises a four step procedure. In the first step, community leaders will be classified as having either an expansive or nonexpansive ideological orientation to development. The second step involves the integration of these leaders into proposed expansive/nonexpansive development-oriented groups. The third step of the procedure will be to measure the social organization for development of each proposed group. The final step will be the classification of communities on expansive and nonexpansive development. This approach will lead to an analysis of a threshold effect of the number and influence of each of the two types of leaders on the type of development (expansive or nonexpansive) the community has experienced over the past ten years.

Step 1. The members of the communities in this study will be represented by a community elite subsystem. This subsystem consists of those leaders identified as being most influential for the development of the community based on a reputational approach similar to that developed by Hunter (1953). The community elite subsystem will be divided into two groups--a group of expansive leaders, and a group of nonexpansive

leaders. These persons will be identified as being of either expansive or nonexpansive ideological orientation based on their responses to the question, "What do you think are the three most important problems or needs of the community?" In addition to their responses to this question, information on their ranking of the three responses according to importance will be used for the assessment of their ideological orientation to growth.

Step 2. The next step in the approach proposes that leaders classified as either expansive or nonexpansive are organized into groups oriented to development consistent with their ideologies. This proposal, first of all, assumes that leaders identified as expansive or nonexpansive form an organized group with shared norms and development objectives. The second assumption is that the overall development of the community will be oriented toward either expansive or nonexpansive growth as a function of the success of each group in gaining development objectives consistent with their ideologies. That is, the more successful the group of expansive leaders for development, the greater the expansive development. The development the community experiences over time should be nonexpansive for greater success of nonexpansive leaders.

Step 3. Social organization for development is a construct incorporating a combination of two concepts--centrality and influence. "Centrality designates how close a member is to the 'center' of the group's interactive network, and thus refers simultaneously to the frequency with which a member particpates in interaction with other members, and to the number and range of the other members with whom he/she interacts" (Hopkins, 1964:28). The more contacts a person makes within a group, the more involved or "central" that person is within the interactive network of the group. The social organization of a group will be derived in part from a procedure that anatomizes the centrality of all the individuals within the group's interactive network.

Influence is an individual's potential to effect the outcomes of others (Minton, 1972:102). The basis of influence is others' perception of the individual's ability to effect outcomes. The addition of influence to the construct of social organization for development takes into account variability in the success of a leader in guiding community development toward his/her ideology, based on the influence this person has relative to the other leaders.

Centrality and influence are distinct indicators of an individual's relative position in a group. Centrality indicates how involved an individual is within the interaction network of the group. The influence of an individual is a nominalist conception of the effect of his/her actions on others. By combining the two concepts of centrality and influence, we will have an indication of the impact on others--the primacy of each individual.

In considering the primacy of an individual, the concepts of centrality and influence should each be measured separately. The measures for each, then, should not overlap. Support for this position is offered by Bonjean (1963, 1964). Bonjean has described four, different, primary types of leaders: the visable leader, who holds both position and influence; the positional leader, who holds occupational position, but does not hold influence; the concealed leader, who holds influence, but not position; and the activist, who holds neither position nor influence. In devising a measure for influence, we should consider all four of these leaders. If influence is measured based on an additive score of number of contacts (whether these contacts are weighted for frequency or not), the activist, who holds little influence, but makes many contacts, will be incorrectly rated as being influential. There is a need for measures of centrality and influence that are not associated with each other.

Centrality will be measured by using smallest space analysis of the interaction network of community leaders (Laumann, 1976). Smallest space analysis takes into account the least path distances for a contact matrix of individuals. A path distance is the minimum number of directed lines (communication flow) that must be traversed in order to reach a second point (individual) from the first. An individual's centrality score will be an assigned number ranging from one to four dependent upon the region of the two-dimensional representation of the interaction matrix that person is placed using smallest space analysis. Each representation has four equi-distant regions: the central; the first periphery; the second periphery; and the area outside the circular representation. For purposes of coding, the central region will be assigned a value of four, with each less centrally-placed region receiving its appropriate value proceeding to the outside area.

The operationalization of influence to be used here is a combined score of two separate measures--recall rank and summary rank. Recall rank is based on the assumption that in cases of reciprocal recall of contacts between two individuals, the individual recalling the greatest number of contacts will be of lower relative status (Miller, 1976:6). This measure will be an additive score for each individual of a positive, real number obtained by coding the frequency of contact reported by another person to the numerator of a fraction, and the frequency of contact with that other person reported by the individual to the denominator of the fraction. For example, consider individuals A and B. These persons can report a frequency of contact with each other as being: 1. ("occasionally"); 2. ("monthly"); 3. ("weekly"); 4. ("several times weekly"); and so on. Suppose the frequency of contact with individual A reported by person B is 3. ("weekly"). Suppose also that the frequency of contact with B reported by A is 4. ("several times weekly"). In computing the recall rank for A, this individual's score from person B would be 3/4. The total recall rank for A would be the addition of similarly coded fractions for each other person in the group reporting interaction with A.

The "break-even" fraction computed for an individual in contact with another person is 1/1 (reduced)--where both individuals report equal frequency of contact with each other. The greater the difference in reported frequency of contact between two individuals, the greater the difference in influence between them. Correspondingly, the more fractions above 1/1 coded for an individual in a group, the greater the relative influence of that individual.

Recall rank gets directly at the concept of deferential influence based on differences in recalled contacts; because it measures influence based on differences in recall, rather than on total number of contacts. Therefore, it is less susceptible to inaccuracies from inflation of low influentials who have many contacts within the group. The activist, for example, will record a large number of fractions in the group interaction matrix using recall rank. However, each score will act to "increase" the influence of the person he/she contacts, while "decreasing" his/her own influence. A highly uninfluential person with many contacts will not be able to score high on recall rank if he/she is not recalled by others (0/x = 0). Finally, it is important to note that the recall-rank measure of influence will contain inaccuracies if influential leaders are highly inactive; while at the same time, each one recalls contact with a person of low influence--the addition of many small fractions for the low-influential person, with only one or two scores for a high-influential, will inaccurately inflate the recall rank of the low-influence activist.

The second measure of influence is the summary rank measure (McCann, 1977:4). The summary rank measure codes each individual in the group as having the potential for receiving a rank of 1. ("most influence"), 2. ("second most influence"), or 3. ("third most influence"), from each of the individuals interviewed. The summary rank for each individual is constructed by inverting the rank this person receives. That is, score each rank of 1. received from others as 3.; score each rank of 2. received as 2.; and score each rank of 3. received as 1. The summary rank for an individual is the sum of all the scores received from others (or that is self-assigned). The possible range for this measure depends on the number of individuals interviewed and the ranks given by each. In the hypothetical case of a total of 40 individuals interviewed, each ranking person A, for example, as 1. ("most influence"), the summary rank measure would be 40 x 3 = 120.[1]

1. Influence Measure 3. (McCann, 1977:1) rates influence from implied deference based on direction of contact. This measure has good intuitive appeal. However, since we have not yet found research showing that the person who initiates contacts more often is of lower relative status, we have not incorporated it into the combined measure of influence used here.

In this study, the recall rank measure and the summary rank measure will be combined to give an influence score for each individual. It is difficult to theorize as to which measure is more indicative of influence. The recall rank measure denotes influence through implied deference based on differences in recalled frequency of contacts between two individuals. The summary rank measure, as McCann (1977:4) states, "clearly has [good] face validity regarding the matter of influence because it is generated by the question, 'Would you now select and rank the three among the individuals named, that you think have the most influence.'" The simplest way to combine the two measures would be to give equal weight to each one.

In order to combine recall rank and summary rank, the scores for each must first be standardized. This step will be accomplished by setting the highest score for each measure as an upper limit (on a scale of 0 - 10.00), with the scores for each of the other individuals in the group being a ratio score relative to the upper limit. For example, if individuals A, B, and C have scores of 7.50, 6.00, and 5.00 (for the recall rank or summary rank measure), their scores would be standardized as 10.00, 8.00, and 6.67 respectively. This procedure is theoretically exact because influence is being measured relative to the group. It is empirically exact because the scores for each measure are standardized on a ratio scale, which gives each individual a numerical score that corresponds to his/her relative influence. Once both measures have been computed, the influence rank for each individual will be equal to the addition of the two (standardized) scores.

The influence score multiplied by the centrality score will yield a score that indicates the primacy of each individual. To obtain a score for the social organization for development of a group of expansive or nonexpansive leaders within the community elite subsystem, the primacy score for each expansive/nonexpansive individual will be added. Therefore, the larger the social organization score for expansive leaders, the greater the social organization for expansive development in the community. The greater the social organization score for nonexpansive leaders, the greater the social organization for nonexpansive development in the community.

Step 4. The classification of communities on expansive and nonexpansive growth will use a macro-level approach of compiling data from six different indexes of development. For each community, growth will be measured on indexes of: community living conditions (measured by population distribution, housing characteristics, health, education, employment rates, and welfare); the governmental environment (measured by the number of persons voting, educational expenditures, and expenditures per capita for public facilities); the natural environment (measured by climate-related factors); the economic environment (measured by the value of construction, the value of manufacturing added, total bank deposits, per capita income, and savings per capita); public safety (measured by the crime index rate, number of violent

crimes, number of property crimes, and the number of full-time law enforcement officers per capita); and the health, education, and cultural environment (measured by the number of physicians per capita, the number of dentists per capita, hospital beds per capita, newspaper circulation per capita, and the number of persons per commercial broadcasting station). A score for nonexpansive growth will be derived using Liu's (1976) regression equation for quality-of-life development, which is based on the six indexes listed above. A score for expansive growth will be derived using a similar equation that is limited to economic indicators of the community. The algebraic difference in the scores for expansive and nonexpansive community development will yield a single score for a community that will indicate its orientation to growth. The greater this score, the more the community is oriented toward expansive development; the less this score, the more the community is oriented toward nonexpansive development.

The Analysis

The study will test for a relationship between expansive/nonexpansive social organization for development, and the type of development the community has experienced over a ten year period. The test will be evaluated based on a rank-order correlation measure (Spearman's r) between social organization and community development.

Theorem 1. Among communities, the greater the social organization for development, the greater the development.

Hypothesis 1. Among communities, the greater the social organization for development among expansive leaders, the greater the expansive development.

This hypothesis will be tested by, first, ranking the communities on their orientation to development. Then, each community will be ranked on its degree of expansive social organization for development. This will be based on a procedure that measures social organization for expansive development discrete from the social organization for nonexpansive development. Using a separate smallest space analysis of centrality accounting for influence, the social organization for each group will be computed. Then, the social organization for development of the nonexpansive group will be subtracted from the social organization for development of the expansive group in the community elite subsystem. The score for the social organization of expansives has been computed in this manner so as to allow for the possibility of an isolated, but well-organized, clique of nonexpansive leaders, which could positively affect the nonexpansive development of the community. Hypothesis 1. will be evaluated based on the size of the rank-order correlation coefficient between expansive community development, and the social organization for development of expansive leaders.

Hypothesis 2. Among communities, the greater the social organization for development among nonexpansive leaders, the greater the nonexpansive development.

This hypothesis will be tested and evaluated using the same approach as was used to test the first hypothesis.

Hypothesis 3. Among communities, the greater the expansive/nonexpansive homogeneity of social organization for development within the elite subsystem, the greater the predictability of expansive or nonexpansive development.

The thesis for Hypothesis 3. is that the more homogeneous a community elite subsystem is toward either expansive or nonexpansive development, the greater the predictability of expansive or nonexpansive development in the community. In other words, the greater the community elite subsystem is organized for expansive or nonexpansive development, the greater will be that type of development in the community.

The evaluation of Hypothesis 3. will require a score for the homogeneity of orientation to development for each community elite subsystem. This can be reduced to obtaining a measure for each elite subsystem on its social organization for development. The measurement of a subsystem on social organization for development will involve a two step procedure. First, the primacy of each leader in the elite subsystem will be coded as expansive or nonexpansive. This will be accomplished by multiplying the primacy score of expansive leaders by a factor of +1. The primacy of nonexpansive leaders will be multiplied by a factor of -1. In the second step, the coded primacy score for each leader in the elite subsystem will be added. This will yield a measure for the social organization for development of a community elite subsystem that is coded on a dimension of expansive/nonexpansive ideological orientation to growth. The reason this measure yields a different score from those obtained for a group of expansive or nonexpansive leaders after the separation of the other group from the subsystem (in testing for Hypotheses 1. and 2.), is because the method does not take into account isolated cliques of well-organized expansive or nonexpansive leaders, but considers the overall social organization of the community elite subsystem composed of positively and negatively coded leaders. Here, the smallest space analysis of centrality accounting for influence is computed for all the leaders at once; while in order to account for expansive/nonexpansive homogeneity, the leaders have been coded with positive and negative scores for their primacy in the community elite subsystem.

Hypothesis 3. will be evaluated based on the size of the rank-order correlation coefficient between communities ranked on their orientation to development, and community elite subsystems ranked on social organization for development. Since expansive leaders have been coded with positive primacy scores, and the primacy scores of nonexpan-

sive leaders have been coded as negative, the greater the social organization for development of the community elite subsystem, the greater should be the expansive development of the community. Similarly, the less the score for social organization for development of the community elite subsystem, the greater should be the nonexpansive development of the community.

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